What is Claimed is:

1.   A method for identifying a peptide which binds to an anti-double stranded DNA antibody which comprises:

(a)   contacting a peptide library composed of randomly generated peptide sequences with an anti-double stranded DNA antibody;

(b)   detecting the formation of a complex between said anti-double stranded DNA antibody and a peptide;

(c)   isolating and purifying said peptide; and

(d)   sequencing said peptide.

2.   The method of Claim 2, wherein said peptide library consists of decapeptides expressed on the minor coat protein of pIII.

3.   A peptide identified by the method of Claim 1.

4.   The peptide of Claim 3, wherein said peptide comprises D-amino acids.

5.   The peptide of Claim 3, wherein said peptide comprises L-amino acids.

6.   A peptide which binds to an anti-double stranded DNA antibody.

7.   The peptide of Claim 6, wherein said peptide comprises D-amino acids.

8.   The peptide of Claim 6, wherein said peptide comprises L-amino acids.

9.   The peptide of Claim 6, comprising the amino acid sequence X-Gly-Trp-X-Arg-Val, wherein X is any amino acid known in the art.

10.   The peptide of Claim 6, comprising the amino acid sequence X-Trp-X-Tyr-His-X, wherein X is any amino acid known in the art.

11.   The peptide of Claim 6, comprising the amino acid sequence X1-Trp-X1-Tyr-X2, wherein X1 is Asp or Glu, and X2 is Gly or Ser.

12.   The peptide of Claim 6, comprising the amino acid sequence X1-Gly-X1-Trp-Pro-Arg, wherein X1 is Asp or Glu.

13.   The peptide of Claim 3 conjugated to a detectable marker.

14.   The peptide of Claim 6 conjugated to a detectable marker.

15.   The peptide of Claim 3 conjugated to a toxin.

16.   The peptide of Claim 6 conjugated to a toxin.

17.   A composition comprising a peptide which binds to an anti-double stranded DNA antibody.

18.   The composition of Claim 17, comprising the amino acid sequence X-Gly-Trp-X-Arg-Val, wherein X is any amino acid known in the art.

19.   The composition of Claim 17, comprising the amino acid sequence X-Trp-X-Tyr-His-X, wherein X is any amino acid known in the art.

20. The composition of Claim 17, comprising the amino acid sequence X1-Trp-X1-Tyr-X2; wherein X1 is Asp or Glu, and X2 is Gly or Ser.

21. The composition of Claim 17, comprising the amino acid
5 sequence X1-Gly-X1-Trp-Pro-Arg, wherein X1 is Asp or Glu.

22. A composition comprising two or more peptides each of which binds to an anti-double stranded DNA antibody.

10 23. The composition of Claim 22, wherein said peptides comprise the amino acid sequences selected from the group consisting of X-Gly-Trp-X-Arg-Val, wherein X is any amino acid known in the art; X-Trp-X-Tyr-His-X, wherein X is any amino acid known in the art; X1-Trp-X1-Tyr-X2, wherein X1 is Asp or Glu, and X2 is Gly or Ser; and X1-Gly-X1-Trp-Pro-Arg, wherein X1 is Asp or Glu.
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24. A method for detecting the presence of an anti-double stranded DNA antibody in a biological sample comprising the steps of contacting said biological sample with a peptide which binds to an anti-double stranded DNA antibody and detecting the formation of a complex between said peptide and said anti-double stranded
20 DNA antibody.

25. The method of Claim 24, wherein said peptide comprises the amino acid sequence X-Gly-Trp-X-Arg-Val, wherein X is any amino acid known in the art.
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26. The method of Claim 24, wherein said peptide comprises the amino acid sequence X-Trp-X-Tyr-His-X, wherein X is any amino acid known in the art.

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27.   The method of Claim 24, wherein said peptide comprises the amino acid sequence X1-Trp-X1-Tyr-X2, wherein X1 is Asp or Glu, and X2 is Gly or Ser.

5   28.   The method of Claim 24, wherein said peptide comprises the amino acid sequence X1-Gly-X1-Trp-Pro-Arg, wherein X1 is Asp or Glu.

29.   A method for detecting the presence of an anti-double stranded DNA antibody in a biological sample comprising the steps of contacting said biological

10   sample with two or more peptides each of which binds to an anti-double stranded DNA antibody and detecting the formation of a complex between said peptides and said anti-double stranded DNA antibody.

30.   The method of Claim 29, wherein said peptides comprise the

.15   amino acid sequences selected from the group consisting of X-Gly-Trp-X-Arg-Val, wherein X is any amino acid known in the art; X-Trp-X-Tyr-His-X, wherein X is any amino acid known in the art; X1-Trp-X1-Tyr-X2, wherein X1 is Asp or Glu, and X2 is Gly or Ser; and X1-Gly-X1-Trp-Pro-Arg, wherein X1 is Asp or Glu.

20   31.   A method for diagnosing systemic lupus erythematosus in a subject suspected of having systemic lupus erythematosus comprising the steps of:
    (a)   obtaining a biological sample from the subject;
    (b)   contacting said biological sample with a peptide which binds to an anti-double stranded DNA antibody; and
25   (c)   detecting formation of a complex between said peptide and said anti-double stranded DNA antibody if present in said biological sample.

32.   The method of Claim 31, wherein said peptide comprises the amino acid sequence X-Gly-Trp-X-Arg-Val, wherein X is any amino acid known in the
30   art.

33. The method of Claim 31, wherein said peptide comprises the amino acid sequence X-Trp-X-Tyr-His-X, wherein X is any amino acid known in the art.

34. The method of Claim 31, wherein said peptide comprises the amino acid sequence X1-Trp-X1-Tyr-X2, wherein X1 is Asp or Glu, and X2 is Gly or Ser.

35. The method of Claim 31, wherein said peptide comprises the amino acid sequence X1-Gly-X1-Trp-Pro-Arg, wherein X1 is Asp or Glu.

36. A method for diagnosing systemic lupus erythematosus in a subject suspected of having systemic lupus erythematosus comprising the steps of:

(a) obtaining a biological sample from the subject;

(b) contacting said biological sample with two or more peptides each of which binds to an anti-double stranded DNA antibody; and

(c) detecting formation of a complex between said peptides and said anti-double stranded DNA antibody if present in said biological sample.

37. The method of Claim 36, wherein said peptides comprise the amino acid sequences selected from the group consisting of X-Gly-Trp-X-Arg-Val, wherein X is any amino acid known in the art; X-Trp-X-Tyr-His-X, wherein X is any amino acid known in the art; X1-Trp-X1-Tyr-X2, wherein X1 is Asp or Glu, and X2 is Gly or Ser; and X1-Gly-X1-Trp-Pro-Arg, wherein X1 is Asp or Glu.

38. A method for treating systemic lupus erythematosus in a subject in need of such treatment comprising administering to said subject a peptide which binds an anti-double stranded DNA antibody in an amount effective to treat systemic lupus erythematosus.

39. The method of Claim 38, wherein said peptide comprises the amino acid sequence X-Gly-Trp-X-Arg-Val, wherein X is any amino acid known in the art.

5   40. The method of Claim 38, wherein said peptide comprises the amino acid sequence X-Trp-X-Tyr-His-X, wherein X is any amino acid known in the art.

41. The method of Claim 38, wherein said peptide comprises the 10 amino acid sequence X1-Trp-X1-Tyr-X2, wherein X1 is Asp or Glu, and X2 is Gly or Ser.

42. The method of Claim 38, wherein said peptide comprises the amino acid sequence X1-Gly-X1-Trp-Pro-Arg, wherein X1 is Asp or Glu.

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43. A method for treating systemic lupus erythematosus in a subject in need of such treatment comprising administering to said subject two or more peptides each of which binds an anti-double stranded DNA antibody in an amount effective to treat systemic lupus erythematosus.

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44. The method of Claim 43, wherein said peptides comprise the amino acid sequences selected from the group consisting X-Gly-Trp-X-Arg-Val, wherein X is any amino acid known in the art; X-Trp-X-Tyr-His-X, wherein X is any amino acid known in the art; X1-Trp-X1-Tyr-X2, wherein X1 is Asp or Glu, and X2 25 is Gly or Ser; and X1-Gly-X1-Trp-Pro-Arg, wherein X1 is Asp or Glu.

45. A method for treating or preventing glomerulonephritis in a subject in need of such treatment comprising administering to said subject a peptide which binds an anti-double stranded DNA antibody in an amount effective to treat or 30 prevent glomerulonephritis.

46.   The method of Claim 45 wherein said peptide comprises D-amino acids.

47.   The method of Claim 45, wherein said peptide comprises the amino acid sequence X-Gly-Trp-X-Arg-Val, wherein X is any amino acid known in the art.

48.   The method of Claim 45, wherein said peptide comprises the amino acid sequence X-Trp-X-Tyr-His-X, wherein X is any amino acid known in the art.

49.   The method of Claim 45, wherein said peptide comprises the amino acid sequence X1-Trp-X1-Tyr-X2, wherein X1 is Asp or Glu, and X2 is Gly or Ser.

50.   The method of Claim 45, wherein said peptide comprises the amino acid sequence X1-Gly-X1-Trp-Pro-Arg, wherein X1 is Asp or Glu.

51.   A method for treating or preventing glomerulonephritis in a subject in need of such treatment comprising administering to said subject two or more peptides each of which binds an anti-double stranded DNA antibody in an amount effective to treat or prevent glomerulonephritis.

52.   The method of Claim 51 wherein said peptides comprise D-amino acids.

53.   The method of Claim 51, wherein said peptides comprise the amino acid sequences selected from the group consisting X-Gly-Trp-X-Arg-Val, wherein X is any amino acid known in the art; X-Trp-X-Tyr-His-X, wherein X is any amino acid known in the art; X1-Trp-X1-Tyr-X2, wherein X1 is Asp or Glu, and X2 is Gly or Ser; and X1-Gly-X1-Trp-Pro-Arg, wherein X1 is Asp or Glu.